

Portland Economic Opportunities Analysis: Employment land demand and supply

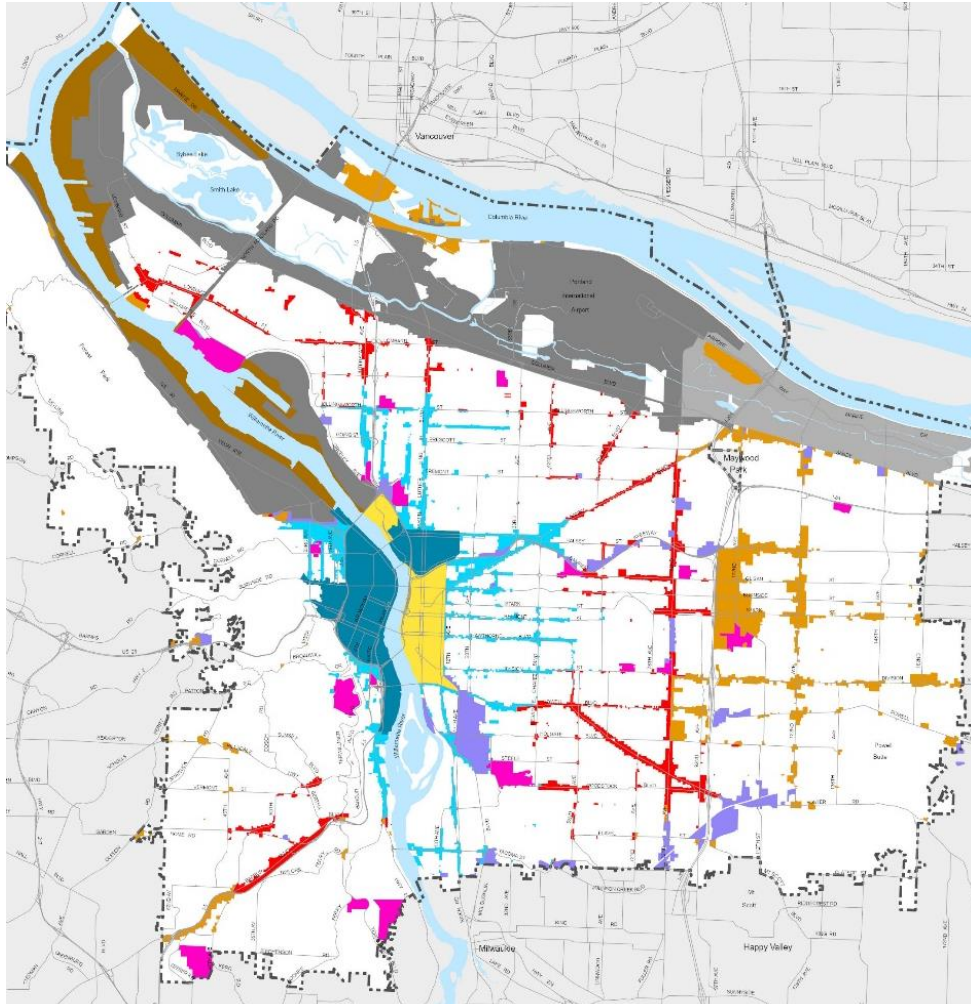
Portland Freight Committee, November 2, 2023



THE BUREAU OF **PLANNING
& SUSTAINABILITY**

Employment Forecast

What's in the EOA forecast?



11 district geographies are market segments of projected job growth and developable land demand

For example,

Baseline (mid-range) results, 2019-2045:

Harbor & Airport Districts

17,800 Added jobs

11,117,000 New building SF

849 Land demand acres

What we studied:

Trends and market factors

- **EOA Trends Report** (March 2022) – above-average regional and city growth; diverse sector growth; mixed growth by jobs/development/output; back-sliding equity outcomes; cluster growth trends
- **Marine Industrial Land Analysis** (ECONW, 2021) – expanding market potential; land-constrained trends
- **Pre- and post-pandemic forecasts reviewed:** slowing national/state/regional forecasts
- **Updated forecast inputs:** employment, construction permits, other sources

National, state, and regional job growth forecasts

Comparing average annual job growth (AAGR) in recent trends and forecasts				
	U.S. (Global Insight, 2022)	Oregon (OEA, 2022)	MSA (Metro, 2018)	Tri-County (OED, 2021)
	2019-2032	2019-2032	2018-2045	2019-2030
Total employment	0.53%	0.68%	0.89%	0.83%
Industrial sectors	0.3%	0.5%	0.3%	0.8%
Office sectors	0.7%	0.9%	1.2%	0.9%
Health & Education	0.8%	0.9%	1.5%	1.2%
Retail & Consumer Svcs	0.3%	0.3%	0.6%	0.4%
% of 2008-2019 Trend	61%	59%	60%	56%

Market factors affecting the forecast

- **COVID/recession** - snapback recovery, slower in Portland; 6-9% inflation in 2022; hybrid office work
- **Slower growth of labor force** – retiring boomers; lower birth rate and in-migration
- **Accelerating industrial-sector growth** – moderated recession losses; e-commerce; supply chain disruptions; uptick in manufacturing investment and federal incentives (clean energy, chips)
- **Instability** – inflation, risk of second recession

Forecast demand model methodology

Regional job forecast	Oregon Employment Department's industry forecast for the Portland Tri-County Area from 2019 to 2030 is projected to 2045. Total AAGR = 0.82%.
City job growth	Tri-County projections by industry are allocated to city by share. Total city jobs in baseline set by 46% capture rate, consistent with 2008-2019 trend.
Jobs to building types	Projected job growth is assigned to 7 building types, set by updated assumptions to each industry's 2019 jobs by employment geography and adjusted by 2008-2019 growth rates of jobs and new construction.
SF per job	New construction square feet by building type is estimated by SF-per-job assumptions, updated by new construction trends and 2019 conditions.
FAR	Development acreage demand is estimated by FAR assumptions for building types by geography, updated by new construction trends and 2019 conditions.
Projections by building type	Employment, new building square feet, and developable land demand are projected by building type and geography to 2030 and 2045. Land demand adjusted by intensification assumptions by building type, updated by trends.

What are the baseline forecast results?

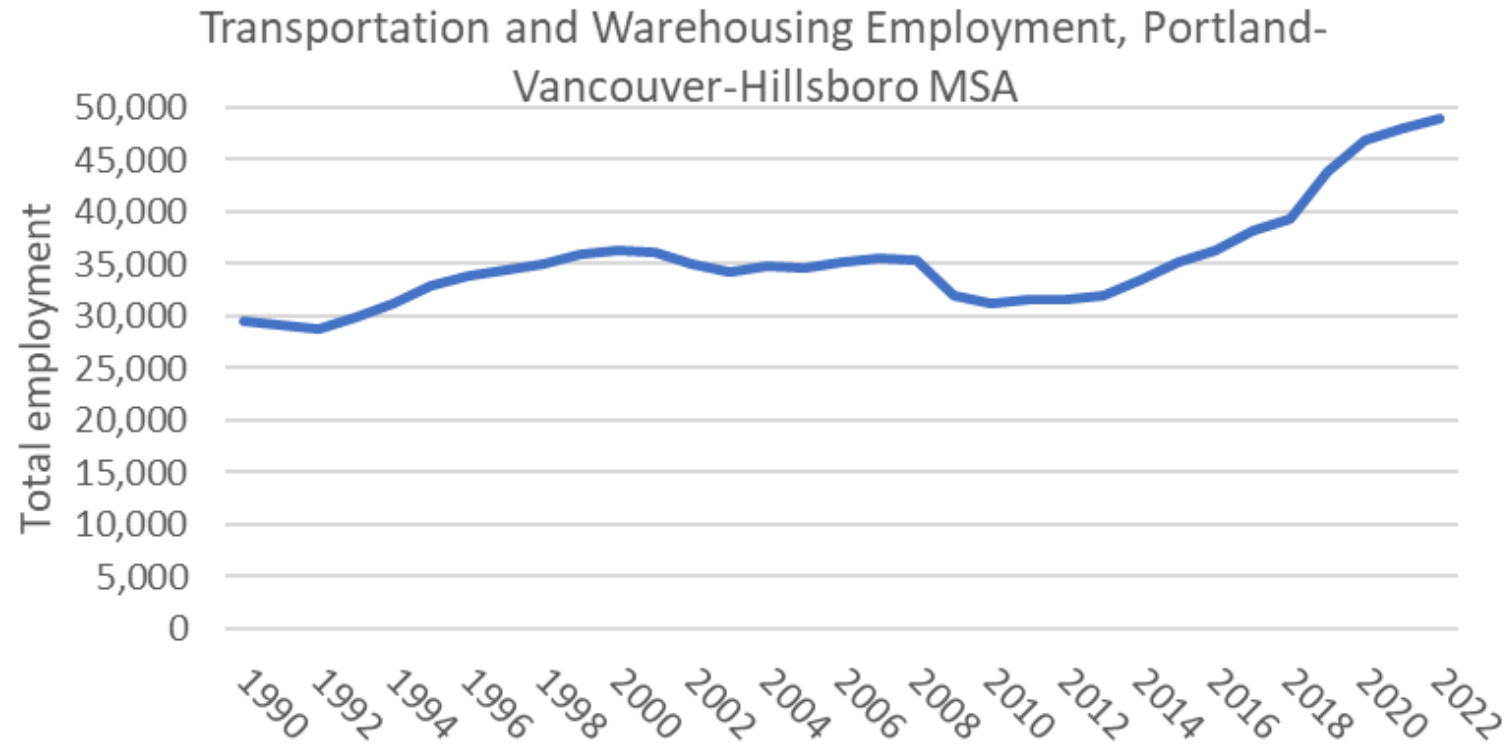
Baseline projections to 2045

Geography	Added Jobs	Total Building Square Feet	Total Acres
Total	110,400	37,730,000	1,825
Central City	27,600	8,509,000	47
Commercial	22,500	5,781,000	183
Industrial	35,800	20,677,000	1,511
Institutions	5,900	2,763,000	85
Residential	18,600		

Middle-wage job growth projected to increase

Projected middle-wage job growth by core sectors, Portland, 2019-2045				
	Middle-wage jobs that require less than a bachelor's degree (MWLB),			
	Baseline Scenario			City %
		MWLB %	Sector %	of Total
	MWLB	of sector	of MWLB	Tri-County
Employment sectors	change	growth	growth	Jobs, 2019
All Sectors	39,400	36%	100%	46%
Core MWLB Sectors	34,800	57%	89%	37%
Transp. & Warehousing	19,000	89%	48%	73%
Healthcare, exc Hospitals	8,900	33%	23%	51%
Construction	3,200	80%	8%	39%
Admin Support	1,800	42%	5%	40%
Wholesale	1,400	45%	4%	44%
Manufacturing	500	36%	1%	27%
All other sectors	4,500	9%	11%	49%

Accelerating job growth in Transportation and Warehousing sector



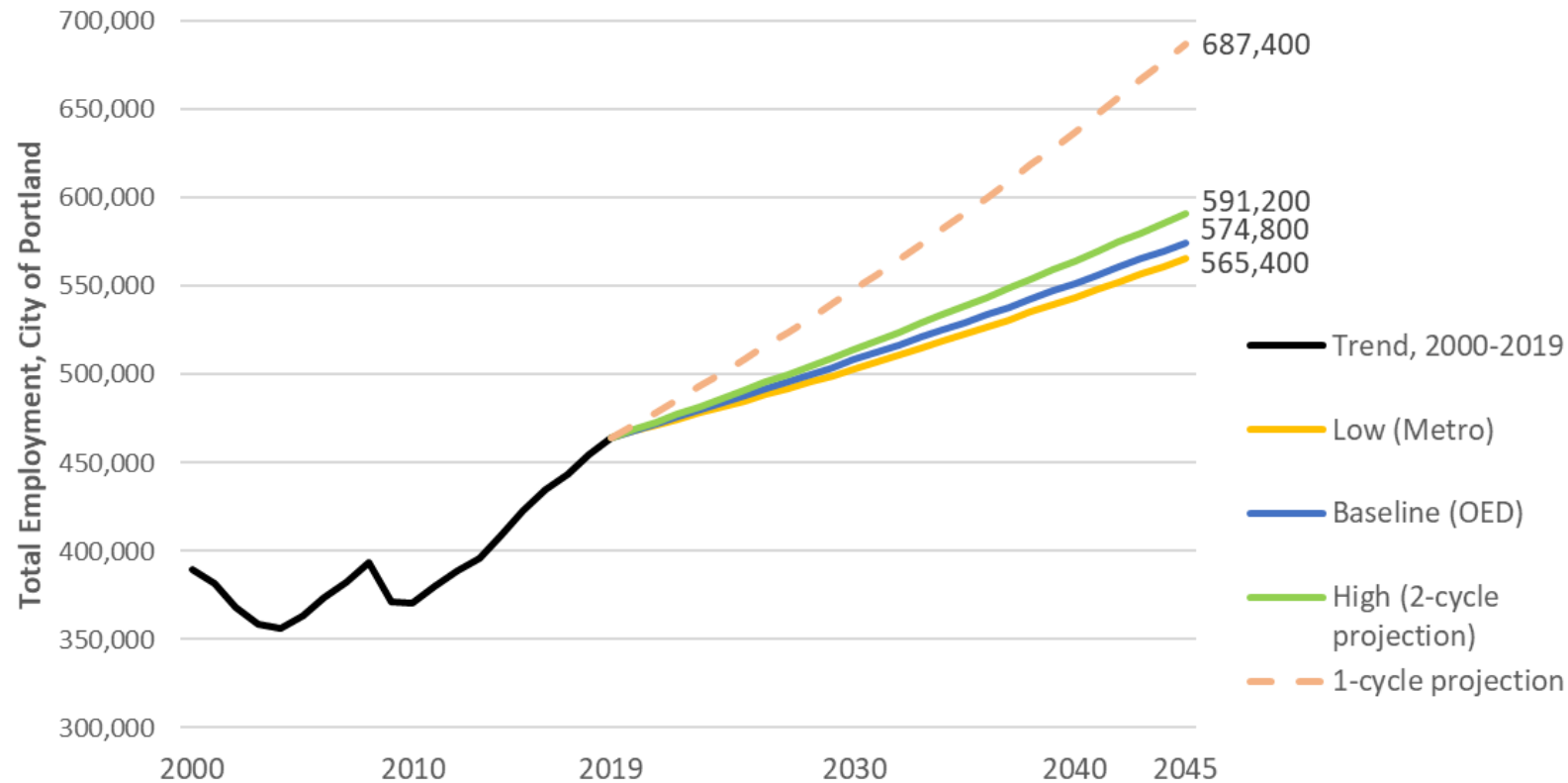
Source: CES data, NAICS 48-49

Draft forecast scenarios

- **Low**, 101,000 new jobs – Minimum requirement to meet citywide allocation of Metro's 2018 forecast
- **Baseline** (mid-range), 110,400 new jobs – OED Tri-County projections by sector; trend-based city capture rate
- **40% Middle-Wage**, 118,600 new jobs – Expands MWLB share of baseline from 36% to 40%, similar to 40-40-20 Rule for higher education
- **High**, 126,800 new jobs – Matches city growth trend of last two business cycles

Employment trends and forecast scenarios

City employment trends and projection scenarios, 2000-2045



Source: BPS; trend from QCEW data; baseline from OED Tri-County projections; low scenario from Metroscope 2021; high scenario from 2000-2019 trend (last 2 peak-to-peak business cycles); 1-cycle reference trend from 2008-2019 business cycle

Employment BLI

What is the BLI?

An assessment of the **current development capacity of land** within the City of Portland to accommodate forecasted employment needs through the year 2045.

BLI Methodology

- 1 – Inventory Vacant Land
- 2 – Inventory Redevelopable Land
(Strike Price/Site-Size Threshold)
- 3 – Calculate Gross Development Capacity
- 4 – Apply Development Constraints
- 5 – Add Recent (2020-23) Development
(as actual capacity)
- 6 – Results = Net New Development Capacity

1. Identify Vacant Land

VACANT LANDS COMPARISON 2016/2020 - EOA INDUSTRIAL GEOGRAPHIES				
East Columbia Harbor Access Lands Harbor and Airport Districts				
Year	All figures represented in Acres			Total
2016	436.1	255.3	1,448.6	2,140.0
2020	306.4	366.5	1,297.8	1,970.7

Vacant Lands in Industrial EOA Geographies - 2016 and 2020

BLI_Revised_for_2020

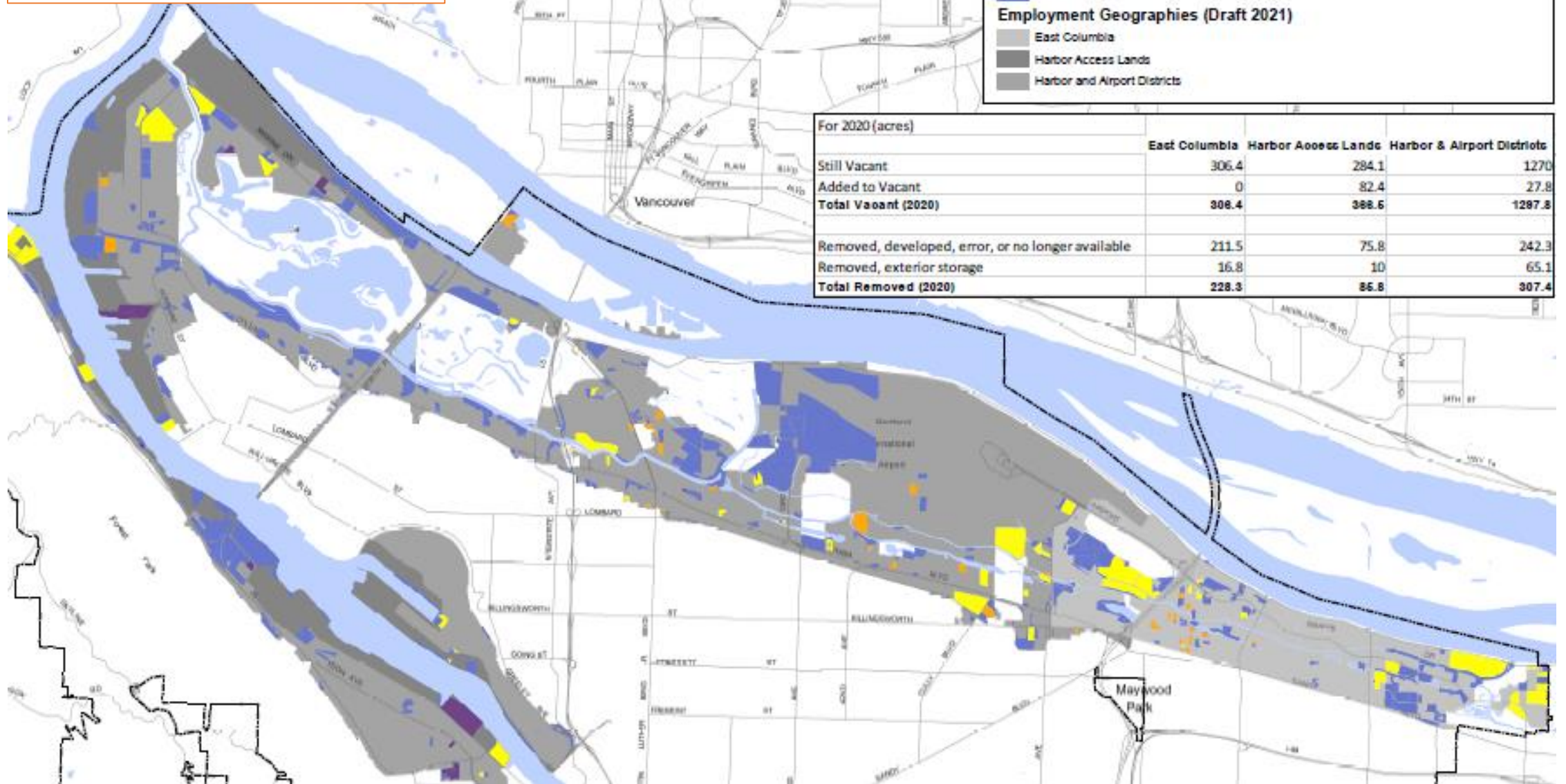
- Removed from Vacant Inventory (developed, error, or no longer available)
- Removed from Vacant Inventory (exterior storage)
- Added to Vacant Inventory
- Vacant, no change

Employment Geographies (Draft 2021)

- East Columbia
- Harbor Access Lands
- Harbor and Airport Districts

For 2020 (acres)

	East Columbia	Harbor Access Lands	Harbor & Airport Districts
Still Vacant	306.4	284.1	1270
Added to Vacant	0	82.4	27.8
Total Vacant (2020)	306.4	366.5	1297.8
Removed, developed, error, or no longer available	211.5	75.8	242.3
Removed, exterior storage	16.8	10	65.1
Total Removed (2020)	228.3	85.8	307.4



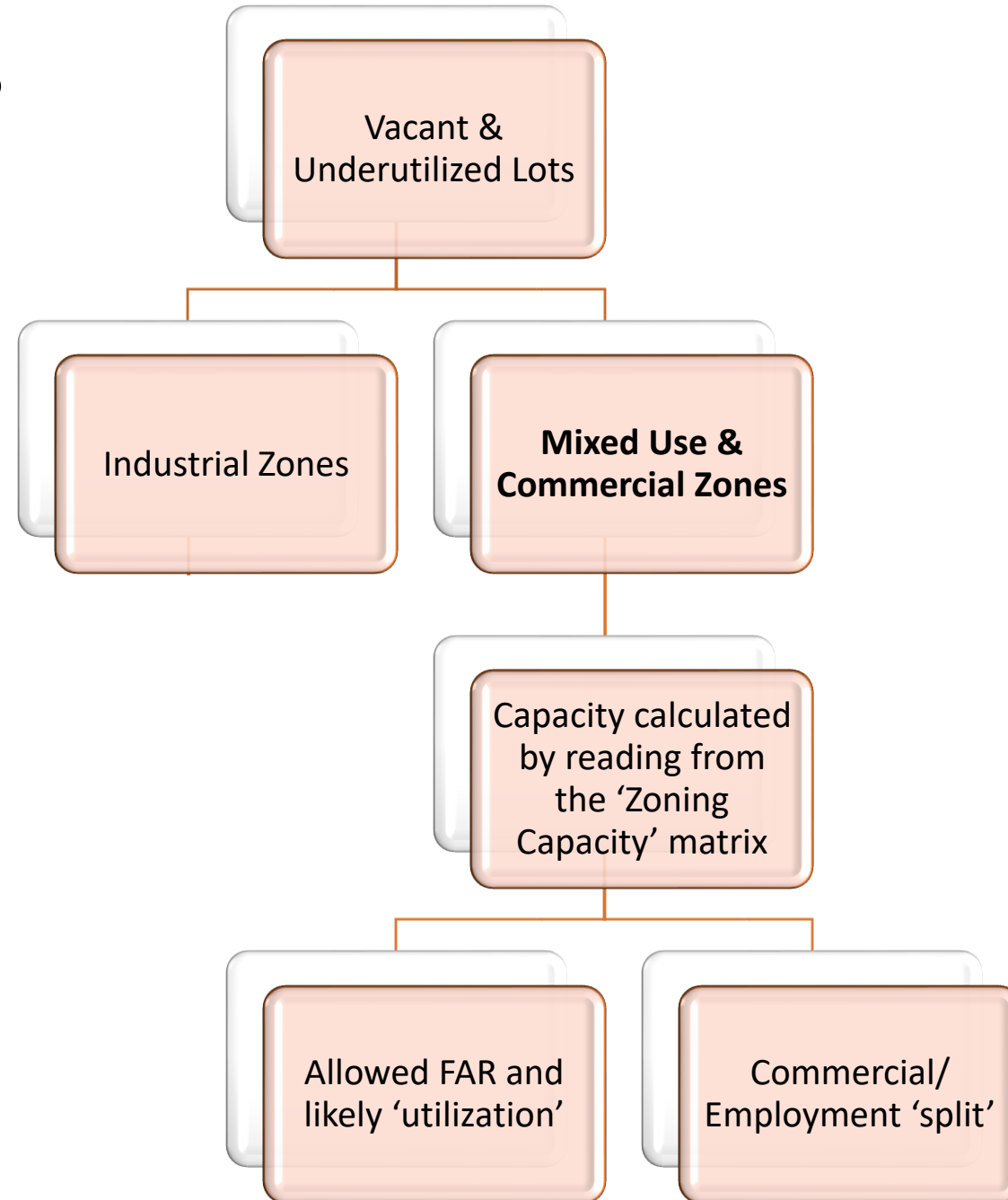
2. Identify Redevelopment Land

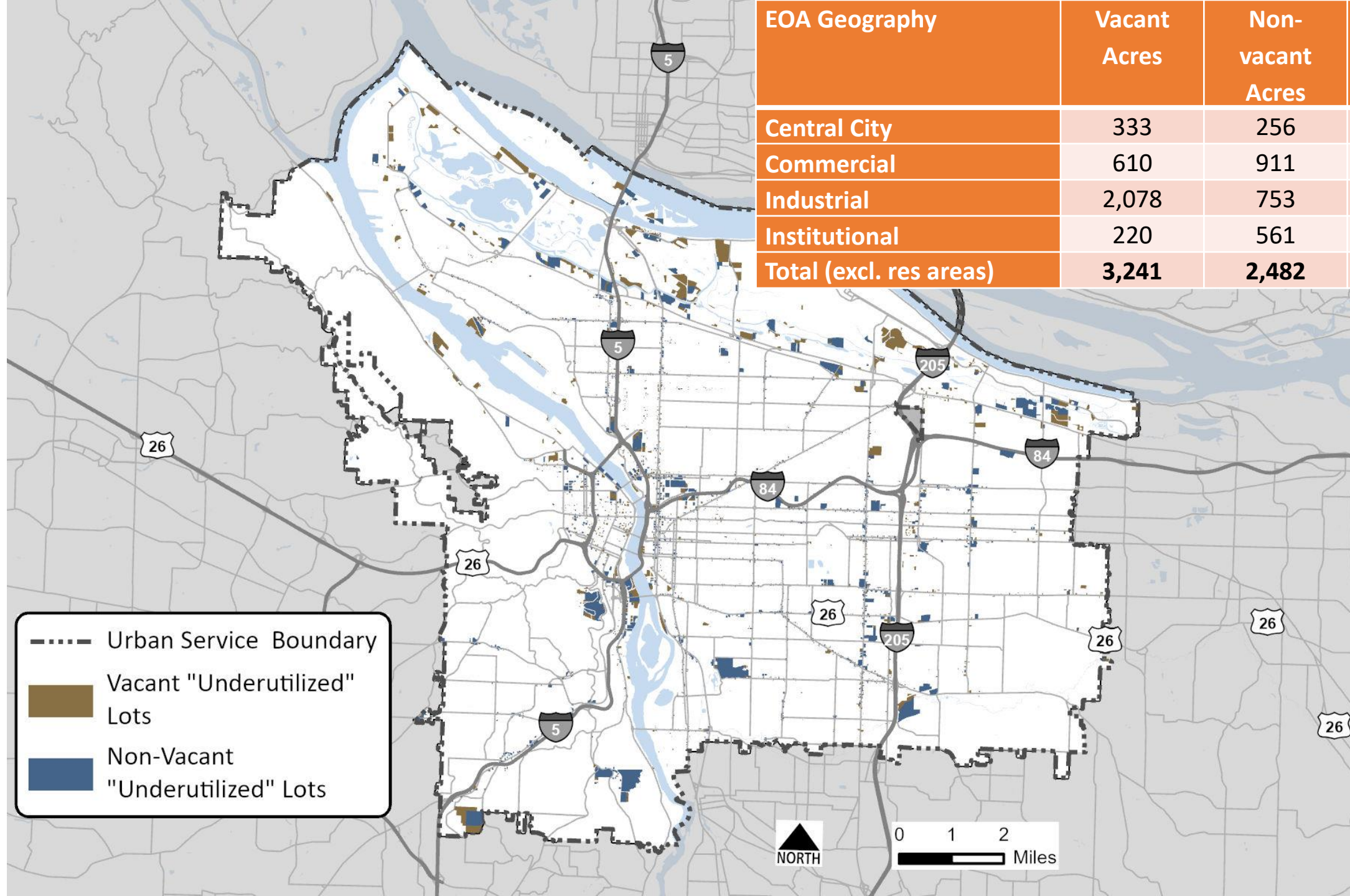
Development Feasibility Lens

- Industrial zones:
 - \$15 per square foot “strike price”
 - Site size: 3+ acres
 - No site size restriction in the Central City Industrial or Dispersed Employment geographies
 - >50% of the taxlots in the site must be underutilized or vacant
- Commercial and mixed-use zones:
 - Identified using a pro forma feasibility analysis

3. Calculate Gross Employment Capacity

for mixed-use
& commercial zones

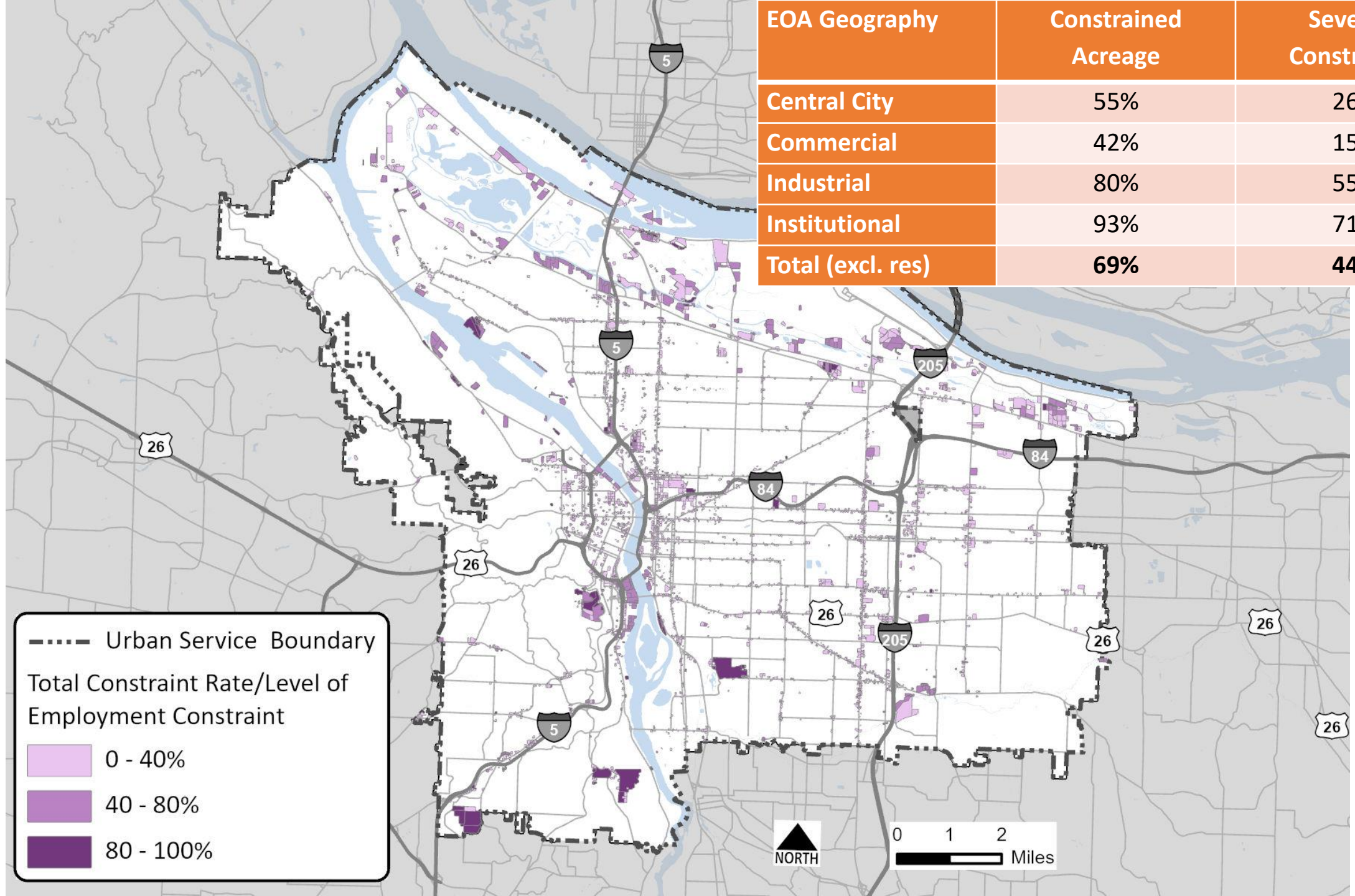




EOA Geography	Vacant Acres	Non-vacant Acres	Total Acres
Central City	333	256	589
Commercial	610	911	1522
Industrial	2,078	753	2,831
Institutional	220	561	781
Total (excl. res areas)	3,241	2,482	5,723

Constraints

Constraint	Capacity utilization rate	Constraint	Capacity utilization rate
Environmental (c-zone)		Brownfield (ECSI)	
Central City	75%	Central City	95%
Commercial	25%	Commercial	95%
Industrial	50%	Industrial	50%
Greenway		Harbor Access Lands	10%
Central City	65%	Infrastructure / Transportation	
Commercial	60%	Central City	75%
Industrial	50%	Commercial	75%
100-year floodplain		Industrial	75%
Central City	50%	Historic landmarks	
Commercial	35%	Central City	55%
Industrial	40%	Commercial	55%
		Industrial	55%



EOA Geography	Constrained Acreage	Severely Constrained
Central City	55%	26%
Commercial	42%	15%
Industrial	80%	55%
Institutional	93%	71%
Total (excl. res)	69%	44%

Reconciliation of Demand and Supply

Supply/demand reconciliation: Baseline forecast

Baseline land demand and supply reconciliation

EOA Geographies	2019-2045 Demand		BLI Supply	Reconciliation (Acres)	
	Added jobs	Land Acres	Land Acres	Surplus (Shortfall)	Capacity % of demand
Central City	27,600	47	117	70	251%
Commercial	22,500	183	452	269	247%
Industrial	35,800	1,511	1,072	(438)	71%
Institutions	5,900	85	196	111	230%

Supply/demand reconciliation: 2045 Forecast Scenarios

Reconciliation of 2045 forecast scenarios with BLI land supply

Employment geography	BLI Capacity	Baseline, Surplus/ (shortfall)	High, Surplus/ (shortfall)	Middle-wage, Surplus/ (shortfall)	Low, Surplus/ (shortfall)
Central City	117	70	61	68	76
Commercial	452	269	236	257	288
Industrial	1,072	-438	-1,041	-602	-348
Institutions	196	111	91	99	122

Supply/demand reconciliation: Parcel size assessment

Parcel size reconciliation of baseline land demand and supply

Employment Geography	Employment capacity surplus (or shortfall) by parcel size							
	Total	<1ac	1-3ac	3-5ac	5-10ac	10-20ac	20-50ac	>50ac
Central City	70	40	21	6	5	2	8	0
Commercial	269	160	28	24	54	5	0	0
Industrial	-438	14	11	48	32	-121	-428	4
Institutional	111	38	-4	0	27	50	0	0

Supply/demand reconciliation: Baseline forecast

Reconciliation of 2030 baseline forecast and short-term land supply

Employment geography	BLI Short-term Capacity	Baseline 2019-2030 Demand	Reconciliation (Acres)	
			Surplus (Shortfall)	Capacity % of demand
Central City	90	22	68	416%
Commercial	408	86	321	471%
Industrial	641	602	40	107%
Institutions	128	25	103	522%

Discussion

- Do you understand/agree with the key assumptions?
- What elements are confusing?
- Are the results consistent with your view of economic opportunity in Portland?

